

REMARKS

Applicants respectfully request entry of the above amendment. The amendment is being submitted with a Request for Continued Examination (RCE) under 37 C.F.R. §1.114.

Claims 1, 2, 9, 10, 12, 16-66, 69, 72, 77, 80-85, 88, 93, 96, 99-109 and 124-145 are canceled. Claims 3-8, 11, 13-15, 67, 68, 70, 71, 73-76, 78, 79, 86, 87, 89-92, 94, 95, 97, 98, 110-123 and 146-148 are pending.

Claims 15 and 112 are amended to include the features of their respective base claims and are in condition for allowance. Claims 13 and 14 are amended to depend from claim 15, and claims 110 and 111 are amended to depend from claim 112.

Claim 3 is amended to require oxalic acid or a salt thereof. Support is provided by original claim 9.

Claims 70 and 75 are amended to require an aqueous herbicidal **concentrate** composition. Support is provided at page 27, line 1, to page 28, line 12, and page 30, lines 15-29.

The method of claim 116 is amended to clarify that the requirement of decreasing surfactant content of an aqueous herbicidal concentrate composition is as compared to a reference application mixture devoid of oxalic acid or said salt but otherwise having the same composition as said enhanced application mixture. The method of claim 118 is similarly amended to clarify that the requirement of decreasing aqueous toxicity of an aqueous herbicidal concentrate composition is as compared to a reference application mixture devoid of oxalic acid or said salt but otherwise having the same composition as said enhanced application mixture. Support is provided at page 12, lines 8-10 and page 21, lines 15-25, of the specification.

In reference to the Advisory Action dated 16 February 2005 and to the pending claims, claim 15 was objected to as being dependent upon a rejected base claim, but was determined to be allowable if amended to include the features of the base claim and any intervening claims; claims 67, 68, 86, 89-92, 97, 98, 112, 121 and 122 were determined to be allowable; and claims 3-8, 11, 13, 14, 70, 71, 73-76, 78, 79, 87, 94, 95, 110, 111, 113-120, 123 and 146-148 remain rejected under 35 U.S.C. §103(a) over

the cited references **Hasabe** et al. (US 5,863,863), **Beestman** et al. (US 4,159,901), **Wright** et al. (US 5,750, 468) and **Turner**¹.

It is respectfully submitted that claims 15, 67, 68, 86, 89-92, 97, 98, 112, 121 and 122, as well as claims 13, 14, 110 and 111 which depend from claims 15 and 112, respectively, are in condition for allowance. It is also submitted that claim 87, which depends from claim 86, is in condition for allowance.

Rejection under 35 U.S.C. §103(a)

A. Claims 3, 70, 75, 94, 113 and 123

Each of claims 3, 70, 75, 94, 113 and 123 require glyphosate **concentrate** compositions containing oxalic acid or a salt thereof. Concentrate compositions are described at page 63 of the instant specification as containing at least 10 weight percent glyphosate acid equivalent (120 g a.e./L).

Turner describes glyphosate tank-mix solutions containing only up to 0.14% glyphosate IPA acid equivalent² and 2% oxalic acid. **Turner** teaches that glyphosate acid precipitates from glyphosate concentrate spray solutions containing dicarboxylic acid.³ **Turner** therefore teaches away from claims 3, 70, 75, 94, 113 and 123 while

¹ Turner, D.J. "Effects on glyphosate performance, additives and mixing with other herbicides." *The Herbicide Glyphosate*, Chapter 15, pages 221-239 Grossbard et al., ed., Butterworths (1985).

² Turner, at Table 15.4 (page 230) describes application of up to 0.4 kg a.i. glyphosate IPA/ha, but application volume is not disclosed, thus glyphosate concentration cannot be determined. That volume is disclosed to be 200 L/ha at column 1, page 201, in the reference D.J. Turner and M.P.C. Loader, *Complexing agents as herbicide additives* (1978), Weed Research 1978, Volume 18, 199-207 (submitted to the USPTO as reference number 68 in the IDS of February 16, 2002). Glyphosate concentration can therefore be calculated as follows: $((400.0 \text{ g a.i. glyphosate IPA/ha}) / (200 \text{ L/ha})) (0.72 \text{ g glyphosate a.e./g glyphosate IPA a.i./kg}) = 1.44 \text{ g a.e./L (about 0.14\%)}$.

³ Turner (1985) at page 230.

Wright does not suggest the combination of glyphosate concentrates and dicarboxylic acids.

It is respectfully submitted, therefore, that claims 3 (and claims 4-8 and 11 that depend therefrom), 70 (and claims 71, 73 and 74 that depend therefrom), 75 (and claims 76, 78 and 79 that depend therefrom), 94 (and claim 95 that depends therefrom), 113 (and claims 114 and 15 that depend therefrom) and 123 meet the requirements under 35 U.S.C §103(a) and are in condition for allowance.

B. Claims 116 and 118

Claims 116 and 118 are directed to methods of reducing the surfactant loading and aquatic toxicity, respectively, of glyphosate compositions while maintaining herbicidal efficacy, the method comprising adding oxalic acid or a salt thereof to the composition to form an enhanced application mixture. Surfactant loading reduction, aquatic toxicity reduction and maintenance of herbicidal efficacy are as compared to reference compositions not containing oxalic acid or a salt thereof, but otherwise having the same composition as said enhanced application mixture.

Hasabe describes formulating **storage stable** compositions containing the IPA salt of glyphosate; an ethoxylated quaternary surfactant or a tertiary amine surfactant, the ethoxylated quaternary amine surfactant optionally being combined with a nonionic ethoxylated lauryl ether amine surfactant; and oxalic acid or a salt thereof. The weight ratio of glyphosate a.e. to oxalate a.e. of the **Hasabe** formulations was fixed at about 15.6:1; the weight ratio of surfactant to oxalate a.e. was fixed at 3.9:1; and glyphosate efficacy enhancement was described at a fixed weight ratio of surfactant to oxalate a.e. of 3.9:1 - efficacy enhancement at any other ratio is not described or suggested. Because the surfactant content was fixed, it follows that **Hasabe** could not describe or suggest that the herbicidal efficacy of glyphosate compositions could be maintained by adding oxalic acid to the compositions in order to compensate for a reduced surfactant content. Only the applicant has made such a showing. As to reducing aquatic toxicity by adding oxalic acid or a salt thereof to glyphosate formulations comprising a surfactant, **Hasabe** is silent.

Hasabe, therefore, does not describe, suggest or attach any importance to a method for **reducing surfactant loading** of glyphosate compositions while maintaining efficacy as required by claim 116 or to a method for **reducing aquatic toxicity** of glyphosate as required by claim 118. It is respectfully submitted, therefore, that claims 116 (and claim 117 that depends therefrom) and 118 (and claims 119 and 120 that depend therefrom) meet the requirements under 35 U.S.C §103(a) and are in condition for allowance.

C. Claims 146 and 148

Claims 146 and 148 are directed to solid pesticidal concentrate compositions containing a glyphosate salt or ester and oxalic acid or a salt thereof. Claim 148 further requires a surfactant component comprising one or more cationic or nonionic surfactants.

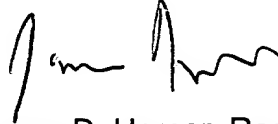
The Office, at page 5, fourth paragraph, of the Advisory Action, states that "Wright teaches solid compositions comprising glyphosate and oxalic acid...(col 5:40+; col 8:46+)." Review of those cited passages indicates that **Wright** generally describes enhancers such as ammonium sulfate or fatty acids, but dicarboxylic acids, such as oxalic acid, are not described or suggested. It is submitted therefore that **Wright** fails to teach, suggest or attach any importance to solid compositions containing a glyphosate salt or ester and oxalic acid or a salt thereof. Claims 146 (and claims 147 that depends therefrom) and 148, therefore, meet the requirements under 35 U.S.C §103(a) and are in condition for allowance.

V. Conclusion

In view of the foregoing, Applicant respectfully submits that all pending claims are in condition for allowance. Accordingly, Applicant respectfully requests favorable reconsideration and allowance of all pending claims.

The Commissioner is hereby authorized to charge any underpayment or credit any overpayment to Deposit Account No. 19-1345.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'James D. Harper', with a stylized, flowing script.

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